

# GAME DEVICE AND GAME SYSTEM

## Background of the Invention

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The present invention relates to a game device adapted to be played for one or a plurality of players outside by means of electric equipment having communication facilities.

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~~As a conventional example of this kind of game device, known is a game device which can be played by connecting portable the game devices each other.~~

However, although this game device has been accepted as product intended for a primary schoolchild, with the development of personal computer communications, this game device cannot provide a game device such as satisfies the user of a junior high or high school student any longer.

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Recently, there has been developed the distribution of the games through personal computer communications or by means of portable remote terminal.

### Problem that the Invention is to Solve

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An object of the present invention is to provide a game device and a game system thereof, wherein information that is to be needed for the process of game is sent to a host computer between a plurality of the players or by each player by means of electric equipment having communication facilities, and wherein the game can be played not inside the house as before, but outside.

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## Brief Summary of the Invention

### Means for Solving the Problem

An invention according to Claim 1 provides a game device comprising communication means for sending information that is to be needed for the process of

game from a players' side to a station's side through a communication line, and analysis means for analyzing said information so sent on the station's side, and sending means for sending the players' side the results of the analysis from the station side, so that the game can be developed through information interchange.

5           The invention provides a game device, wherein the players' side sends information that is to be needed for the game device to the station's side through a communication line, and said information so sent is analyzed by the station's side so as to send the results of the analysis that can be a hint as to the process of game from the station's side to the players' side, so that the game can be developed through information  
10 interchange, and, for example, in a case where a riddle game is played, the riddle of the process of game can be solved, or, with respect to a treasure hunting, the players' side can find the place where a treasure is buried, so that each players' side can play a game outside by means of communication information terminal.

15           An invention according to Claim-2 provides a game device comprising communication means for sending parameter that is to be needed for the process of game from the players' side to the station's side through the communication line, analysis means for analyzing parameter so sent by the station's side, and sending means for sending the results of analysis that can be a hint as to the process of game from the station's side to the players' side, so that the game can be developed through information  
20 interchange.

25           The invention provides a game device, wherein the players' side sends parameter that is to be needed for the process of game to the station's side through the communication line, and parameter so sent is analyzed by the station's side so as to send the results of analysis to the players' side, so that information that can be a hint as to the process of game can be received by the players' side, whereby the players' side can decide the action by inference based on said information.

          Claim 3 of the present invention provides ~~an invention as set forth in any of Claims 1 or 2, wherein different~~ parameter that is to be needed for the process of game is sent to the station's side within a predetermined time with game fields being changed.

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The invention provides a game device, wherein different parameter corresponding to the respective game fields is sent from the players' side to the station's side, so that, for example, there is caused the difference in the offensive strength by increasing the number of points in accordance with different inputted information of parameter, or the number of points that is to be scored varies according to analysis of a specific information or a strategy of the players' side.

a Claim 4 of the present invention provides <sup>a</sup> ~~an invention as set forth in any of Claims 1 to 3, wherein~~ parameter so sent from the players' side to the station's side, which is to be needed for the process of game, varies in accordance with such elements as time, weather and order.

The invention provides a game device, wherein parameter so sent by the players' side varies in accordance with such elements as time, weather and order, for example, depending on whether it is fine or it rains, whether it is before or after 10:30 a.m. or whether it was sent first or fifth, parameter varies, and there are cases where the players' side cannot receive a hint that was expected or there are cases to the contrary to thereby have much more fun playing game.

a Claim 5 of the present invention provides ~~an invention as set forth in any of Claims 1 or 4, wherein~~ <sup>that</sup> the players' side consists of a plurality of teams or players.

The invention provides a game device, wherein the game can be played not by one player but by a plurality of teams or players, helping each other so as to develop the game, a battle game can be played between the players or the teams.

Claim 6 of the present invention provides an game system, wherein information that is to be needed for the process of game is sent from the players' side to a station's side through a communication line, and wherein said information so sent is analyzed by said station's side so as to send the results of the analysis that can be a hint as to the process of game from the station's side to the players' side, so that the game can be developed through information interchange.

The invention relates to a game system, wherein information that is to be needed for the process of game is sent from the players' side to a station's side through a

communication line, and wherein said information so sent is analyzed by the station's side so as to send the results of the analysis that can be a hint as to the process of game from the station's side to the players' side, so that the game can be developed through information interchange, whereby, even if both the sides are far away from each other, the game can be played. For example, the players in Hokkaido can join a game by contacting the station's side in Tokyo so as to receive a hint as to the process of game, so that a game can be played in a national scale.

Claim 7 of the present invention provides an game system, wherein parameter that is to be needed for the process of game is sent from a players' side to a station's side through a communication line, and wherein said parameter so sent is analyzed by the station's side so as to send the results of the analysis that can be a hint as to the process of game from the station's side to the players' side, so that the game can be developed through information interchange.

The invention provides a game system, wherein information that can be a hint as to the process of game is received by the players' side, whereby the players' side can decide an action by inference, and wherein the a deductive power or vitality of the players' side can be reflected on the game.

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Claim 8 of the present invention provides a ~~game system as set forth in any of Claims 6 or 7~~, wherein different parameter that is to be needed for process of game is sent from the players' side to the station's side within a predetermined time with game fields being changed, so that the game can be developed through information interchange.

The invention provides a game system, wherein different parameter corresponding to the respective game fields is sent to the station's side, whereby information that can be a hint as to process of game varies in accordance with different information so inputted, so that different game can be played in the respective fields.

*a*  
*a* Claim 9 of the present invention provides a ~~game system as set forth in any of Claims 6 to 8, wherein~~ parameter so sent form the players' side to the station's side which is to be needed for process of game varies in accordance with such elements as

time, weather and order, so that the game can be developed through information interchange.

add 35  
The invention provides a game device, wherein parameter so sent by the players' side varies in accordance with such elements as time, weather and order, for example, depending on whether it is fine or it rains, whether it is before or after 10:30 a.m. or whether it was sent first or fifth, parameter varies, and there are cases where the players' side cannot take a hint that was expected or there are cases to the contrary to thereby have much more fun playing game.

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Claim 10 of the present invention provides ~~a game system as set forth in any of~~ <sup>that</sup> ~~Claims 7 to 9, wherein~~ the players' side consists of a plurality of teams or players, and wherein a game is played and developed through information interchange.

The invention provides a game device, wherein the game can be played not by one player but by a plurality of teams or players, helping each other so as to develop the game, the battle game can be played between the players or the teams.

#### Mode of Operation of the Invention

The present invention relates to a game device and a game system thereof for playing a game between a players' side and a station's side by means of electric equipment having communication facilities. This game device and game system comprising a communication means for sending information that is to be needed for a process of game from the players' side to the station's side, an analysis means for analyzing information so sent on the station's side and a sending means for sending the results of the analysis that can be a hint as to the process of game.

#### Brief Description of the Drawings

Fig. 1 is a system diagram showing a game device to which the present invention is applied.

Fig. 2 is another system diagram showing the game device to which the present

invention is applied.

Fig. 3 is an embodiment of the present invention showing a flowchart of the start of the game.

5 Fig. 4 is another embodiment of the present invention showing a flowchart of a search for item in the morning.

Fig. 5 is a further embodiment showing a flowchart of lunch.

Fig. 6 is a further embodiment showing a flowchart a search for item in the afternoon.

Fig. 7 is a further embodiment showing a flowchart of the last battle.

10 Fig. 8 is another embodiment showing a flowchart of the attack action.

### Detailed Description

15 Referring to the drawings, an embodiment of the present invention will be described in detail.

20 Figs. 1 and 2 are drawings showing a system of device to which an invention is applied. Fig. 1 is a drawing showing a state in which portable information terminal is used as a communication device on a players' side, and Fig. 2 is a drawing showing a state in which communication facilities are performed on a station's side by connecting a communication terminal to a personal computer. The device to which the invention is applied is a suitable game device with which the players' side play outside.

25 In Fig. 1, a portable telephone is used as a portable information terminal 1, whose telephone communication facilities built-in is used as communication means. Information that can be a hint as to a process of game made by means of portable telephone is to be sent from the players' side to the station's side through a server 2. On the station's side, information so sent from a personal computer 3 (PC) is received, and the results of the analysis that can be a hint as to the process of game is sent to the players' side through the server 2 after information so received is analyzed. Thus, the present invention provides the game device in which game information is interchanged

between the PC 3 on the station's side and the portable information terminal 1 through the server 2, and when a specific item or information is received, these are stored in a storage section 4. For instance, jewelry and watch as a specific item, and a place where treasure is buried as a specific information.

5 In Fig. 2, a personal computer (PC)11 is used as a terminal on the players' side, and information that can be a hint as to the process of game is sent by means of a communication terminal 12 as the internet communication line through a server 13. Information about game so sent is received through the internet communication line of a personal computer (PC) 14 on the station's side, and the results of the analysis that can  
10 be a hint as to the process of game is to be sent to the players' side through the sever 2 after information so received is analyzed. Thus, the invention provides the game device, wherein information about game is interchanged between the PC 14 on the station's side and the PC 11 on the players' side through the internet communication line, and wherein a specific item or information is stored in a storage section 15, if received.

15 Next, referring to the drawings, an embodiment of a game program for use in a game device to which the invention is applied will be described. Figs. 3 to 8 show a flow of a treasure hunting game.

Fig. 3 shows a flowchart of the start of the game. In Step 101, first, all of the players (all of the teams) is supposed to assemble at a hall at the starting time of the  
20 game. At this time, each team is to be divided into two groups and allotted the respective roles. One team plays a role of player who is to act for finding item ID cards, and the other team plays a role of supporter on the station's side who is to solve the riddle of a key word received from the players through the internet, and to give instructions to the player. Then, an opening video is played and roles are allotted to each  
25 team. This opening video is about a story and object of the game, and a flow of the entire game and a specific mark on all of the card without exception will be explained. And then, a tool bag with a portable terminal is given to each team, and how to use the portable terminal is explained. In Step 102, 10 key words left as a key to find the item ID cards are displayed on a monitor at the hall. Step 103, the players advise the

supporter of 10 key words. Supporter of each team are fixed at a desk with a internet terminal within the hall and the supporter cannot contact the player until the end of the game.

5 In Step 104, 10 key words is inputted by the supporter on the players' side who is advised by the players through the internet. Then, in Step 105, a quiz corresponding to the key words so inputted is given to the supporter of each team. In Step 106, whether an answer of the quiz so inputted by the supporter is right or wrong is decided. In a case where the answer of the quiz is recognized to be wrong in Step 106, the supporter goes back to Step 106 and input the answer again. On the other hand, in a case where the  
10 answer of the quiz is recognized to be right, the supporter goes to Step 107, and then information about 10 drivers corresponding to each quiz and coordinate of destination are indicated. Following the supporter's instructions, each team keeps one driver. In case that a driver corresponding to a certain quiz has already been kept by another team, the supporter goes back to Step 106 and must answer another quiz so as to keep another  
15 driver. Information about the driver and the coordinate of destination are not to be indicated until the supporter gives the right answer to the quiz, and the players cannot move to an event hall.

In Step 108, when the player have kept a driver by following the supporter's instructions, the players go to Step 109 and gives the driver a password for a coordinate  
20 of destination. In accordance with the password given in Step 109, each driver drives the players of each team to the event hall in 10 different ways, respectively.

Fig. 4 shows a flowchart of a search for item in the morning, and there are 3 basic event halls, such as a toy exhibition hall, a folk history hall and a communication square, and, in addition, there are a secret hall, a hidden item and a secret informer. The  
25 players are supported to arrive one of the basic halls first. Each driver has been allocated the designated hall so that the halls may not be so crowded. Subsequent halls to be visited can be freely decided by each team.

In Step 110, whether or not it is after 11:25 a.m. is decided. When it is recognized that it is after 11:25 a.m. in Step 110, the search for item in the morning will



be finished and a main office gives a call to a judge (driver) of each team to go to Step 111. The judge of each team must make the players finish the search for item in the morning by 11:30 a.m. without fail and go back to the main hall. On the other hand, when it is recognized that it is not after 11:25 a.m., the main office does not give a call to a judge (driver) of each team, so that the players go to Step 111 and continue the search for item.

In the search for item at the event hall in Step 111, the players of each team search for the information cards and the item ID cards, and when a key word is received, the players go to Step 112 and advises the supporter of the key word. The key word contains information about a weak point of "character" and a useful information for the last battle. Next, in Step 113, the supporter so advised deciphers the key word and gives instructions to the players through the internet. Moving to another hall, the player so given instructions finds the item ID cards, information cards and information from the informer still more. Item ID cards include the cards such as an arm card, a protective equipment card, a special skill card, a coin card and an item-exchange card. Information cards cannot be taken away but only can be seen. Some informers are hiding at the hall, and if the players may find him, the players can get information from the informer. Each informer has his own character, for example, one who exchanges the item ID card for the coin, another who does not give information if lots or game is cleared, a third who does not speak or the other who appears at a predetermined time. However, it is possible that a false information is included together with information card and information from the informer. There are some information about a certain informer who cannot be contacted unless a specific information is deciphered, or about an item shop in which items can be bought with coin. Further, by using GPS, or by analysis of a mysterious map by the supporter, the place can be found where the item is buried. When the item ID card , information or information card is obtained, judges (drivers) are required to advise the main office without fail.

Fig. 5 shows a flowchart of lunch, and, in Step 114, each team receives a lunch box in order of arrival at the main hall. A mysterious card is stuck on the lunch box.

This card is to be used when the teams are divided into fight groups at the stage of the last battle. In Step 115, at the main event hall, the number of items acquired by each team is totaled so as to adjust a frequency of outflow of information that can be a hint as to a search for item in the afternoon according to the number acquired. Although

5 contents of all of the lunch box are the same, service for each team can be differentiated in accordance with the number of items acquired. In Step 116, a team which acquired the most items is decided. The number of items being recognized to be the most in Step 116, such team goes to Step 117 and can have the most wonderful lunch out of all the teams. On the other hand, the number of items being not the most out of all teams, such  
10 team goes to Step 118. In Step 118, whether or not the number of item acquired is second largest is decided. In Step 118, the number of items being recognized to be the second, such team goes to Step 119 and has a slightly less wonderful lunch than the first team. Further, the number of items being recognized not to be the second, such team goes to Step 120. Like this way, being given lunch in accordance with rank of the  
15 number of items acquired, each team have lunch at positions such that all the teams can be seen each other. Each team is supposed to start a search in the afternoon when lunch is finished.

In Step 121, it is judged whether or not it is after 0:30 p.m. and, at the same times, it is before 0:40 p.m. When it is recognized that it is after 0:30 and it is before  
20 0:40, the team goes to Step 122, where the secret informer appears in a parking area near the main hall, and only team which visits there can get a useful information from the informer.

Fig. 6 shows a flowchart of a search for item in the afternoon, which is to be performed at the event hall in the same way as the search for item in the morning. In  
25 Step 123, whether or not it is after 2:25 p.m. is judged. When it is recognized that it is after 2:25 p.m., the search for item is finished, and the main office gives a call to the judge (driver) of each team so as to go to Step 124. The judge (driver) of each team must make the players finish the search for item in the afternoon and take player to the main hall by 2:30 p.m. without fail. Further, when it is 2:30 p.m., the main office sends

mysterious key words to the supporter one by one by email. Said key words contains the useful information for the last battle. Each supporter continues to analyze these key words and must give advice in accordance with a battle situation by email or by telephone one after another so that the team may proceed with the battle advantageously at the last fight stage until an enemy boss character is defeated. On the other hand, in Step 123, when it is recognized that it is not after 2:25 p.m., the players go to Step 127 and proceeds with the search for item in the afternoon.

In Step 127, the players of each team search for the information cards and the item ID cards, and when a key word is obtained, the players go to Step 128 and advise the supporter of the key word. Then, in Step 129, the supporter so advised deciphers the key word and gives advice to the players through the internet. Moving among the halls, the players given instructions try to find the item ID cards, information cards and information from the informer.

In Step 125, the players of all of the teams assembled at the main hall in Step 124 are divided into 4 attacking groups with team as a unit in accordance with mysterious cards stuck on each lunch box at lunch time in Step 114. Next, players go to Step 126, a commander explains to the player a basic method of battle with the enemy boss character with image or by means of a personal computer. Information about further way of battle and effective strategy are described on information card which can be obtained in the search for item. When the explanation is completed, the players go to Step 200 and this is the last stage.

Fig. 7 shows a flowchart of the last fight stage (Last Battle), and, in Step 201, first, the order of attack of 4 groups is decided at random by means of a personal computer. The order of attack is to be re-decided at random by means of personal computer every cycle. In Step 202, a internet terminal and a display are prepared for each group. Advice from the supporter is being received by each team one after another by email or by telephone. Information about the image of the enemy boss character and the battle situation are displayed on a display in real time. "Character" displayed on the display shows a front view of a whole body. Squares of 49 blocks in total by which parts

other than a head are constituted are displayed on the image of "Character", which are arranged in such a manner that 7 blocks are in the horizontal direction and 7 blocks are in the vertical direction. Each square of block is numbered from A to G in the horizontal direction from left to right, and from 1 to 7 in the vertical direction from top to bottom.

5 One block for a head being added, the whole body of "Character" is constituted by 50 blocks in total. In Step 203, after negotiation between each team of the attacking group, which part is to be attacked is selected on the squares displayed on the image of "Character" in accordance with the numbers, such as B-3 of attack block, and the block so selected is inputted and decided by means of the internet terminal. The supporter of  
10 each team analyzes the mysterious information the contents of information card received through the internet, and, by email or by telephone, the supporter continues to send advice about an attacking point in which own team can have an advantage and advice about the timing when the arms and the protective equipment outfitted should be used until "Character" is defeated.

15 After having decided the block to be attacked, the players go to Step 204. In Step 204, the players select either the arm card or the protective equipment card out of the item cards other teams of own attacking group have. However, only one card out of the arm card or the protective equipment card and the like can be used per kind. Further, the ID card used once cannot be used again. It is possible that each team can get the  
20 high score by considering items that can be used, battle situation, advice from supporter and a difference in points to other teams, and by planning the strategy. 3 or 4 cycles of the attack are needed to defeat the enemy boss character. In Step 205, the players of each team in his turn hands a staff the item ID card so selected in Step 204, such as the arm card or the protective equipment card, and, going to Step 206, the players receive  
25 the arm or the protective equipment prepared on the table and wears them. In Step 207, the players of each team go up the attacking stage. The attacking stages are constituted by three stages which are set up in front of a huge blown up vinyl "Character" figure. The players of each team in its turn go up on the respective stages.

Then, the players go to Step 208 of the attack action. Referring to Fig. 8, the

attack action will be described. First, in Step 209, the attack action by each player is performed toward the huge vinyl "Character". Next, in Step 210, a director operates an apparatus for stage effects, and when an attack information is inputted with the players' attack action, the background music, an effective sound and lighting are performed in Step 211 so as to produce an image of attack. After producing the image of attack, the players go to Step 212, and then an attack panel or a counterattack panel which is hidden in the number of attack block at which the players have aimed is displayed on the display of the internet terminal for each attack group. In a case where the displayed panel is the attack panel, the number of basic damage points is displayed. Such number multiplied by the weight of the arms with which each player is equipped is the value of damage being caused to "Character". Further, the number of points of damage caused by each player is added to the score as contribution points every team. In a case where the displayed panel is the counterattack panel, the displayed points are damage being caused to the players by "Character". Damage is regarded as subtraction points, which are to be subtracted from the contribution points every team, but the points to be subtracted can be reduced at the rate of 100% or 50%, or can be rejected. In addition, in a case where the player has a specific skill card (coin-throwing card), whether the panel displayed is the attack panel or the damage panel, damage corresponding to the number of coins the team owns can be caused to "Character". All the damage being caused to "Character" can be accumulated as damage points. In Step 213, the points scored by the players of each team is totaled by a calculator of the main office. Information, such as the contribution points of all the teams so totaled in Step 213 and battle situation, is displayed on the display through the internet terminal so that the gallery and each team may get such information from time to time.

In Step 215, the accumulated damage points being subtracted from the vitality points of "Character", the rest of the vitality points of "Character". In Step 216, in accordance with the rest of the vitality points of "Character", and, in Step 217, operating the apparatus for stage effects, the director expresses the degree of damage being caused to "Character" by changing the background music and the colors of the light. When the

attack action is completed, going back to a flowchart shown in Fig. 7, the players go to Step 218. In Step 218, whether or not the accumulated damage caused to "Character" is more than 1000 points is judged. In Step 218, in a case where it is recognized that the accumulated damage caused to "Character" is not more than 1000 points, the players go to Step 219. In Step 219, whether or not one cycle of the attack against "Character" by the attacking group is completed. In Step 219, in a case where it is recognized that one cycle of the attack is not completed, going back to Step 208, the attacking group in next turn begins the attack action. On the other hand, it is recognized that one cycle of the attack is completed, going back to Step 201, the order of attack of the attacking groups is decided again so as to begin to attack "Character".

Further, Step 218, when it is recognized that the accumulated damage caused to "Character" is more than 1000 points, the players go to Step 220. In Step 220, the director operates the apparatus for stage effects, letting the air out of the huge vinyl "Character" with a terrific noise in Step 221 so as to produce the last of "Character" in Step 222. 300 points are to be given as bonus points to the group that performed the attack action when the accumulated points has just exceeded 1000 points. Bonus points so given are allotted equally to each team of the attacking group that has defeated "Character", which are added to the contribution points of each team. After that, the players go to Step 223, and the last battle is finished.

At the ending in Step 224, a film of a happy ending in the future being showed at the hall, the Chief of Time and Space Control Office honored each team regardless of ranking. The calculator at the main office sends information about defeat of the enemy boss character to all the supporter of each team by email.

And then, in Step 225, a commendation ceremony is performed. The number of contribution points scored is regarded as the degree of contribution to the defeat of "the enemy boss character", and each team is ranked and commended in accordance with such number. A prize is awarded to each team in accordance with the rank. A tile is conferred to the best team. In addition, a special award is conferred to such team as acquired the most items.

## Effectiveness of the Invention

The present invention is carried out in the mode described heretofore, and the following advantages are provided.

5           The present invention provides the game device that can be played between a players' side and a station's side so as to help each other, and, the players' side can enjoy playing the game outside in particular.

10           In addition, the present invention provides the game device and the game system in which information that can be a hint as to the process of game is received by the players' side, whereby the players' side can decide an action by inference based on said information.

15           Further, the present invention provides the game device in which different parameter corresponding to the respective fields can be sent by the players' side, so that information that can be a hint as to process of game varies in accordance with different information so inputted to thereby have more fun playing game.

20           Furthermore, the present invention provides the game device in which parameter varies according to various elements so sent by the players' side, and even if the same parameter is being sent, parameter so sent may vary in accordance with such elements as time, weather and order of sending when parameter is sent to thereby have much more fun playing game .

25           In addition, the present invention provides the game device and the game system that can be played between a plurality of teams or a plurality of players, helping each other so as to develop the game, the battle game can be played between the players or the teams, even if both the sides are far away from each other outside in particular, the game can be played.